

USSN: 10/809,106  
Group Art Unit: 3743  
Docket No. 154-P-58632US004

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### REMARKS

Claims 1 – 7, 10 – 43 and 48 - 52 are pending in this application.

Claims 8 – 10 and 44 – 47 have been canceled, without prejudice.

Original claims 1 – 47 have been rejected.

No claims have been allowed.

#### Amendments to the Claims

Claim 1 has been amended to incorporate the subject matter of original claim 1 plus the subject matter of original claim 10 and claim 27. Amended claim 1 requires that the air duct extends across the whole area of the hood above the head of the user. Support for this claim can be found in original claims 1, 10 and 27, in the specification on page 4 at lines 24 – 29, on page 6 at lines 4 – 9 and on page 6 at lines 14 – 21 and in the drawings. No new matter has been added.

Claim 2 has been amended to delete subject matter added to claim 1. To repeat this subject matter in claim 2 would be redundant. No new matter has been added.

Claims 8 – 10 and 44 – 47 have been canceled, without prejudice.

Dependencies of claims 11 – 18, 24, 27 – 28 and 33 have been amended due to the incorporation of the subject matter of claim 10 into claim 1 and the resultant cancellation of claim 10. No new matter has been added.

Claim 12 has been amended to require that at least one of the outer wall and the inner wall be shape stable. Support for this amendment can be found in the specification on page 5, lines 7 – 15. No new matter has been added.

New claim 48 incorporates the substantive matter of claim 10 and requires that at least one of the outer wall and the inner wall be non-shape stable. Support for the requirement that at least one of the outer wall and the inner wall be non-shape stable can be found in the specification on page 5 at lines 7 – 15. No new matter has been added.

USSN: 10/809,106  
Group Art Unit: 3743  
Docket No. 154-P-58632US004

New claim 49 incorporates the subject matter of original claim 1 plus the subject matter of claim 39. Claim 49 requires that the outlet of the air chamber be inclined to direct air flow away from the face region of the user. Support for this claim can be found in original claims 1 and 39, in the specification on page 6 at lines 26 – 30 and on page 8 at lines 12 – 22 and in the drawings. No new matter has been added.

New claims 50 and 51 include the subject matter of original claims 40 and 41, but depend from new claim 49. No new matter has been added.

New claim 52 incorporates the subject matter of original claim 1 and additionally requires that the air flow contact the side wall at or below the eye level of the user. Support for this claim can be found in original claim 1, in the specification on page 7 at lines 1 – 7, on page 8 at lines 15 – 18 and on page 13 at lines 20 – 25 and in the drawings. No new matter has been added.

#### **Objection to the Drawings**

The drawings have been objected to under 35 USC § 1.83(a) for not showing every feature of the invention specified in the claims.

In particular, the drawings are alleged to be defective for failing to show:

1. the visor formed separately from the side wall (as recited in claim 8);
2. a detachable visor (as recited in claim 9);
3. a portable supply of breathable air (as recited in claim 46);
4. a turbo unit including a fan driven by a battery powered motor and a filter (as recited in claim 45); and
5. a remote source of breathable air (as recited in claim 44).

Claims 8 – 10 and 44 – 46 have been canceled eliminating the claimed recital of the terms found not be illustrated in the drawings. With the cancellation of claims 8 – 10 and 44 – 46, the terms alleged not to have shown in the drawings have been eliminated from the claims. Hence, the objection to the drawings has been rendered moot.

USPN: 10/809,106  
Group Art Unit: 3743  
Docket No. 154-P-58632US004

With the cancellation of claims 8 – 10 and 44 – 46, the objection to the drawings should be withdrawn.

### Rejections Under 35 USC § 102/103

Claims 1 – 47 have been rejected under 35 USC § 102/103 over U.S. Patent No. 3,413,972, Depping (“Depping et al ‘972”). These rejections, over the claims as amended, are respectfully traversed.

#### Claim 1

Claim 1 has been amended to require that the air duct extends across the whole area of the hood above the head.

As can be seen in Figure 5, Depping et al ‘972 discloses an airflow helmet having a air flow channel or conduit (126) that is substantially restricted by side walls (134 and 136). In the description, Depping et al ‘972 states “it may be seen that the conduit 126 is relatively narrow at the rear of the helmet” (column 4, lines 57 – 58). This is clearly an area of the airflow helmet located above the head.

Depping et al ‘972 does not show nor suggest an air duct which extends across the whole area of the hood above the head.

Such an air duct provides that advantageous advantage that the air duct can have a large volume relative to the minimum flow requirements. The volume of the air chamber acts to smooth out any minor fluctuations in the air supply without having any substantial effect on the back pressure presented to the air supply. (See page 4, lines 24 – 29) Air can flow from the inlet to the outlet with less turbulence leading to reduced noise while creating a more even flow of air from the outlet to the face region of the user. (See page 6, lines 7 – 9)

Claim 1, as amended, requiring an air duct extending across the whole area of the hood above the head, is not obvious in view and is patentable over Depping et al ‘972.

USSN: 10/809,106  
Group Art Unit: 3743  
Docket No. 154-P-58632US004

#### Claims 2 – 7, 10 – 43

Claims 2 – 7 and 10 – 43 are all dependent upon claim 1 and each such claim contains all of the requirements and restrictions of claim 1. As noted above, it is respectfully submitted that claim 1 is patentable over Depping et al '972. Therefore, claims 2 – 7 and 10 – 43 should also be patentable over Depping et al '972 for the same reasons, which are hereby incorporated from above by reference.

#### Claim 4

In addition to the requirements of claim 1, claim 4 requires that the visor extends around the head of the user to enclose fully of the head.

Depping et al '972 makes no such disclosure and does not suggest such. Depping et al '972 does not disclose an airflow helmet which extends around the head to enclose fully of the head. However, the visor of the airflow helmet disclosed in Depping et al '972 exists only in front of the user's face. See, for example, Figures 1 and 2.

Claim 4 is patentable over Depping et al '972 for this additional reason.

#### Claim 28

In addition to the requirements of claim 1, claim 28 requires an air flow from inlet to outlet without any sharp or sudden changes in direction.

In contrast, the air flow disclosed in Depping et al '972 shows a marked change in direction as channel or conduit 126 widens from a narrow channel at the rear of the helmet to a broad area at the front of the helmet (see Figure 5).

Thus, Depping et al '972 does not show nor suggest an air flow path from inlet to outlet without sharp or sudden changes of direction.

Claim 28 is patentable over Depping et al '972 for this additional reason.

#### Claims 33 and 39

In addition to the requirements of claim 1, claim 33 requires the outlet being arranged in the side of the channel facing the side wall of the hood.

USPN: 10/809,106  
Group Art Unit: 3743  
Docket No. 154-P-58632US004

In addition to the requirements of claim 1, claim 39 requires that outlet to be formed in a portion of the air chamber that is inclined to direct the air flow away from the face region of the user.

These restrictions are similar to the language contained in claim 49 and the same arguments as applied for the patentability of claim 49 also apply here and are incorporated herein from above by reference.

Depping et al '972 simply has no structure and does not suggest any structure for the outlet being arranged to face the side wall of the hood (claim 33) or away from the face region of the user (claim 39).

Claims 33 and 39 are patentable over Depping et al '972 for these additional reasons.

#### Claim 48

New claim 48 requires that at least one of the outer wall and the inner wall are non-shape stable.

Depping et al '972 discloses a rigid airflow helmet in which the air duct is constrained between a rigid outer wall and a rigid inner wall.

In contrast, claim 48 requires that at least one of the outer wall and the inner wall be non-shape stable. This structure is not shown, disclosed nor suggested by Depping et al '972.

At least one of the outer wall and the inner being non-shape stable allows the hood to more easily conform to the user's body while still maintaining complete functionality of delivering a supply of breathable air the face region of the user.

Claim 48 is patentable over Depping et al '972.

#### Claim 49

New claim 49 requires an outlet formed in a portion of the air chamber that is inclined to direct air flow away from the air chamber away from the face region of the user.

USSN#40809,106  
Group Art Unit: 3743  
Docket No. 154-P-58632US004

Depping et al '972 discloses an airflow helmet in which the air outlet flows directly down and onto the face of the user as shown in Figure 4. As Depping et al '972 explains in column 4, lines 60 – 61, “at which point [the conduit] communicates with the front chamber 90 by elongated opening 138.” As shown in Figure 4, front chamber 90 is directly in front of the face region of the user. Thus, the airflow helmet disclosed in Depping et al '972 discharges air directly onto the face region of the user. Depping et al '972 does not disclose an outlet inclined and does not show nor suggest any sort of outlet which directs the air flow away from the face region of the user.

Claim 49 requires that the outlet be inclined to direct air flow away from the face region of the user. The outlet so inclined prevents the air flow from being directed at the eyes of the user. (See page 6, lines 29 – 30) This feature reduces the risk of the eyes drying out. (See page 8, lines 17 – 18) Depping et al '972 does not show nor suggest such an advantageous structural feature.

Claim 49 is patentable over Depping et al '972.

#### Claims 50 - 51

New claims 50 and 51 depend from claim 49 and are patent over Depping et al '972 for the same reasons that claim 49 is patentable over Depping et al '972.

In addition, claims 50 and 51 require particular angles at which the outlet inclined, namely 15 to 60 degrees (claim 50) and approximately 45 degrees (claim 51).

These required angles simply are not shown, described nor suggested in the airflow helmet disclosed in Depping et al '972. Depping et al '972 contains no inclined structure at all and certainly does not show, disclose nor suggest the particular angles claimed.

Both of claims 50 and 51 are patentable over Depping et al '972.

#### Claim 52

New claim 52 requires that airflow from the outlet contact the side wall of the hood at or below a level of the eyes of the user.

USSN: 10/809,106  
Group Art Unit: 3743  
Docket No. 154-P-58632US004

The airflow helmet disclosed in Depping et al '972 allows outlet air to flow directly downward onto the user's face and into the user's eyes. Depping et al '972 contains no feature which shunts airflow to the side wall. And Depping et al '972 certainly makes no disclosure nor suggestion facilitating the outlet air to impinge on the side wall at or below the level of the user's eyes.

Keeping the airflow against the side wall at or below the level of the eyes of the user helps to prevent the eyes from drying out and user comfort is increased allowing the user to wear the hood for longer periods of time which may result in potential cost savings by reducing lost working time caused by drying out of the eyes of the user. (See page 7, lines 3 – 7, and page 8, lines 17 – 18)

Depping et al '972 has no such disclosure nor suggestion.

Claim 52 is patentable over Depping et al '972.

#### Summary

In view of the amendments made and the arguments presented, claims 1 – 7, 10 – 43 and 48 – 52 should be allowable, this application should be in condition for allowance and a notice to that is earnestly solicited.

USSN: 10/809,106  
Group Art Unit: 3743  
Docket No. 154-P-58632US004

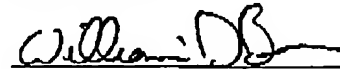
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Respectfully Submitted on behalf of  
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